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(FILE 'HOME' ENTERED AT 15:18:36 ON 18 JUN 2002)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 15:18:48 ON 18 JUN 2002

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L1      0 S ACT4H1
L2      0 S ACT4(L)H1
L3      81 S ACT(L)4(L)H1
L4      135 S ACT(L)4(L)H1
L5      1 S ACT4(L)H1
L6      216 S L3-L5
L7      0 S L6 AND MAB
L8      2 S L6 AND MONOCLON?(L)ANTIBOD?
L9      2 S (ACT4 OR ACT 4)(L)(H1 OR H 1)
L10     2 S L8,L9
L11     0 S HB11483
L12     0 S HB 11483
L13     0 S HBL106
L14     0 S "HB L106"
L15     6 S "L106"
L16     1 S L15 AND MAB
L17     3 S L15 AND MONOCLON?(L)ANTIBOD?
L18     3 S L16,L17
L19     1 S L18 AND PROTEIN
L20     3 S L10,L19
          E GODFREY W/AU
L21     23 S E3-E5,E7,E8
          E BUCK D/AU
L22     95 S E3-E11,E19-E26
          E ENGLEMAN E/AU
L23     126 S E3,E5,E8-E11
L24     3 S L20 AND L21-L23
L25     3 S L6,L15 AND L21-L23
L26     3 S L24,L25
L27     9 S L6,L15 AND (FUSION OR CHIMER? OR CLON? OR RECOMBIN? OR ENGINE
L28     2 S L26 AND L27
L29     3 S L26,L28
L30     7 S L27 NOT L29
L31     3 S RECEPTOR (L) (ACT4 OR ACT 4)
L32     2 S L31 NOT 4/SC
L33     3 S L29,L32

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=> fil hcaplus

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FILE COVERS 1907 - 18 Jun 2002 VOL 136 ISS 25
FILE LAST UPDATED: 17 Jun 2002 (20020617/ED)

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CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d all tot 133

L33 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
 AN 1997:109742 HCAPLUS
 DN 126:130362
 TI Studies of the L106 protein and its gene: evidence that L106 and OX-40 are homologous
 AU Godfrey, Wayne; Buck, David; Harara, Marwan; Benike, Claudia; Engleman, Edgar
 CS UK
 SO Leucocyte Typing V: White Cell Differ. Antigens, Proc. Int. Workshop Conf., 5th (1995), Meeting Date 1993, Volume 1, 1157-1160. Editor(s): Schlossman, Stuart F. Publisher: Oxford University Press, Oxford, UK.
 CODEN: 63WDAC
 DT Conference
 LA English
 CC 15-2 (Immunochemistry)
 AB In this report, the authors exmd. the cellular reactivity of monoclonal antibody L106 with PBMC and B-cell and T-cell lines. In addn., the authors report the biochem. properties of the surface glycoprotein recognized by L106 in comparison with OX-40.
 ST L106 protein OX40 homolog
 IT CD4-positive T cell
 Rat
 (L106 surface glycoprotein as human homolog for rat OX-40 antigen)
 IT Glycoproteins (specific proteins and subclasses)
 RL: BOC (Biological occurrence); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
 (L106; as human homolog for rat OX-40 antigen)
 IT Antigens
 RL: BOC (Biological occurrence); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
 (OX-40, rat; L106 surface glycoprotein as human homolog for)

L33 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
 AN 1995:938174 HCAPLUS
 DN 123:337455
 TI Ligand to a receptor on the surface of activated CD4+ T cells
 IN Godfrey, Wayne; Engleman, Edgar George
 PA Board of Trustees of the Leland Stanford Junior University, USA; Greaves, Carol Pauline
 SO PCT Int. Appl., 124 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C12N015-12
 ICS C07K014-705; C07K019-00; C07K016-28; C12N015-85; C12N005-10; C12N005-08; A61K038-17; A61K039-395; G01N033-53; G01N033-543; G01N033-68
 CC 15-3 (Immunochemistry)
 Section cross-reference(s): 3
 FAN.CNT 2

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI	WO 9521915	A1	19950817	WO 1995-GB238	19950206
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6242566	B1	20010605	US 1994-195967	19940210
	CA 2183066	AA	19950817	CA 1995-2183066	19950206
	AU 9515836	A1	19950829	AU 1995-15836	19950206
	EP 741784	A1	19961113	EP 1995-907739	19950206
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 09509826	T2	19971007	JP 1995-521040	19950206
	US 6156878	A	20001205	US 1997-881033	19970623
	AU 9918436	A1	19990506	AU 1999-18436	19990225
	US 2001044523	A1	20011122	US 2001-804200	20010313
PRAI	US 1994-195967	A	19940210		
	US 1993-147784	A	19931103		
	AU 1995-15836	A3	19950206		
	WO 1995-GB238	W	19950206		
AB	The invention relates to certain specific binding partners, in particular ligands and fragments, variants, mutants or derivs. for a receptor on the surface of activated CD4+ T-cells. Exemplary ligands are based on a ligand designated ACT-4-L-h-1 . Fragments include extracellular domains of the ligand and certain binding moieties with specificity for the above-mentioned specific binding partners are also provided. Suitable binding moieties include humanized and human antibodies to the ligand. The invention further provides nucleic acid segments encoding and pharmaceutical compns. contg. such a specific binding partner or binding moiety as well as expression vectors and cell lines which include these. Compns. and methods comprising the specific binding partners or the binding moieties are useful for treatment of transplant rejection, graft-vs.-host reaction, autoimmune disease, inflammation, or infection by HTLV, HIV, or other infectious agent, and for monitoring activated CD4+ T-cells. In example, monoclonal antibody to PHA-transformed T lymphocyte was prep'd. and used for identification of polypeptide ACT-4-h-1 receptor . Time course of ACT-4-h-1 receptor expression in CD4+ T cell activation, cloning of ACT-4-h-1 cDNA, anal. of ACT-4-h-1 sequence, prodn. of stable ACT-4-h-1 transfectants and fusion protein with Ig, identification of cell types expressing ligand to ACT-4-h-1 , cloning of ACT-4-h-1 ligand cDNA, and anal. of ACT-4-h-1 ligand sequence were performed.				
ST	activated CD4 T cell receptor ligand; immune disease ACT4 receptor ligand; sequence ACT4 receptor ligand T lymphocyte				
IT	Antigens RL: BSU (Biological study, unclassified); BIOL (Biological study) (-specific immunity induction; identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)				
IT	Glycoproteins, specific or class RL: BPR (Biological process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (ACT-4-L-h-1 (activated antigen CD4-pos. human T-cell receptor ligand human 1); sequence of ACT-4-h-1 CD4-pos. human T-cell receptor and its ligand ACT-4-L-h				

- 1 and isolation of antibodies to ACT-4
-L-h-1)
- IT **Receptors**
 - RL: BPR (Biological process); PRP (Properties); BIOL (Biological study);
PROC (Process)
 - (ACT-4-h-1 (activated antigen
CD4-pos. T-cell, human-1); amino acid sequence of ACT-4-h-1 CD4-pos. human T-cell
receptor and its ligand ACT-4-L-h
-1 and isolation of antibodies to ACT-4
-L-h-1 for monitoring or modulating immune response)
- IT **Infection**
 - (agents induce; identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Toxins**
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (conjugates; identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Autoimmune disease**
 - Immunomodulators
 - Immunosuppressants
 - Inflammation
 - (identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Protein sequences**
 - (of ACT-4-h-1 **receptor**
and ACT-4-L-h-1 ligand of human CD4+ T cells)
- IT **Transplant and Transplantation**
 - (rejection; identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Lymphocyte**
 - (B-cell, identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Lymphocyte**
 - (T-cell, identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Deoxyribonucleic acid sequences**
 - (complementary, for ACT-4-h-1
receptor and ACT-4-L-h-1
ligand of human CD4+ T cells)
- IT **Immunoglobulins**
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (conjugates, identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Intestine, disease**
 - (enteritis, identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Transplant and Transplantation**
 - (graft-vs.-host reaction, identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Virus, animal**
 - (human T-cell leukemia, identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Virus, animal**
 - (human immunodeficiency, identification and anal. of ligand to activated CD4+ T cell surface receptor and use for immune diseases)
- IT **Antibodies**
 - RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 - (monoclonal, to ACT-4-h-1 CD4-pos. human T-cell **receptor** or its ligand

ACT-4-L-h-1 and isolation of
antibodies to ACT-4-L-h-1
)

IT 166025-61-2
 RL: PRP (Properties)
 (amino acid sequence; sequence of ACT-4-h
 -1 CD4-pos. human T-cell receptor and its ligand
 ACT-4-L-h-1 and isolation of
 antibodies to ACT-4-L-h-1 for
 monitoring or modulating immune response)

IT 170679-42-2
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (amino acid sequence; sequence of ACT-4-h
 -1 CD4-pos. human T-cell receptor and its ligand
 ACT-4-L-h-1 and isolation of
 antibodies to ACT-4-L-h-1 for
 monitoring or modulating immune response)

IT 166025-60-1
 RL: PRP (Properties)
 (nucleotide sequence; sequence of ACT-4-h
 -1 CD4-pos. human T-cell receptor and its ligand
 ACT-4-L-h-1 and isolation of
 antibodies to ACT-4-L-h-1 for
 monitoring or modulating immune response)

IT 156828-73-8
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (nucleotide sequence; sequence of ACT-4-h
 -1 CD4-pos. human T-cell receptor and its ligand
 ACT-4-L-h-1 and isolation of
 antibodies to ACT-4-L-h-1 for
 monitoring or modulating immune response)

L33 ANSWER 3 OF 3 HCPLUS COPYRIGHT 2002 ACS
 AN 1995:726238 HCPLUS
 DN 123:110151
 TI A receptor, ACT-4, on the surface of
 activated T-cells and its properties and uses
 IN Godfrey, Wayne; Buck, David William; Engleman,
 Edgar George
 PA Board of Trustees of the Leland Stanford Junior University, USA; Becton
 Dickinson and Co.
 SO PCT Int. Appl., 82 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C12N015-13
 ICS C07K014-725; C07K016-28; G01N033-577; G01N033-68; A61K039-395;
 C12N005-20; C12N005-10
 CC 15-2 (Immunochemistry)
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9512673	A1	19950511	WO 1994-GB2415	19941103
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5821332	A	19981013	US 1993-147784	19931103

AU 9480652	A1	19950523	AU 1994-80652	19941103
EP 726952	A1	19960821	EP 1994-931650	19941103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09504693	T2	19970513	JP 1994-513094	19941103
US 6277962	B1	20010821	US 1995-472940	19950606
AU 9894138	A1	19990218	AU 1998-94138	19981126
AU 9918436	A1	19990506	AU 1999-18436	19990225
US 2001044523	A1	20011122	US 2001-804200	20010313
US 2001044522	A1	20011122	US 2001-852845	20010511
PRAI US 1993-147784	A	19931103		
US 1994-195967	A3	19940210		
AU 1994-80652	A3	19941103		
WO 1994-GB2415	W	19941103		
AU 1995-15836	A3	19950206		
US 1995-472940	A1	19950606		
AB ACT-4, a receptor found on the surface of activated T-cells and cDNAs encoding it and antibodies against it are characterized for diagnostic and therapeutic use. ACT-4 receptors are preferentially expressed on the surface of activated CD4+ T-cells. ACT-4 receptors are usually expressed at low levels on the surface of activated CD8+ cells, and are usually substantially absent on resting T-cells, and on monocytes and B-cells (resting or activated). An exemplary ACT-4 receptor, termed ACT-4-h -1, has a signal sequence, an extracellular domain comprising three disulfide-bonded intrachain loops, a transmembrane domain, and an intracellular domain. Monoclonal antibodies to the receptor were used to det. patterns and regulation of synthesis of the receptor. Synthesis was induced by alloantigens and a no. of other stimuli. Cloning of the cDNA and manuf. of the protein by expression of the cDNA or as a fusion protein with an Ig are described.				
ST receptor activated T cell human; ACT4 activated T cell receptor; cDNA ACT4 receptor human				
IT Plasmid and Episome (5K-41BB-Eg1, chimeric gene for fusion protein of Ig and ACT-4 receptor on; receptor ACT-4 on surface of activated T-cells and its properties and uses)				
IT Receptors RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (ACT-4, activated CD4+ T-cell; receptor ACT-4 on surface of activated T-cells and its properties and uses)				
IT Plasmid and Episome (ACT-4-h-1-neo, cDNA for human ACT4 receptor on; receptor ACT-4 on surface of activated T-cells and its properties and uses)				
IT Antigens RL: BSU (Biological study, unclassified); BIOL (Biological study) (activated T-cell; receptor ACT-4 on surface of activated T-cells and its properties and uses)				
IT Immunostimulants Immunosuppressants (monoclonal antibody to ACT-4 receptor; receptor ACT-4 on surface of activated T-cells and its properties and uses)				
IT Protein sequences (of ACT-4 receptor of human; receptor ACT-4 on surface of activated T-cells and its properties and uses)				

IT Antibodies
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (to ACT-4 receptor of activated T-cells;
 receptor ACT-4 on surface of activated
 T-cells and its properties and uses)

IT Lymphocyte
 (B-cell, receptor found on activated T-cells missing from;
 receptor ACT-4 on surface of activated
 T-cells and its properties and uses)

IT Immunoglobulins
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
 BIOL (Biological study); PREP (Preparation)
 (G1, fusion products with ACT-4
 receptor; receptor ACT-4 on
 surface of activated T-cells and its properties and uses)

IT Lymphocyte
 (T-cell, CD4+, activated; receptor ACT-4
 on surface of activated T-cells and its properties and uses)

IT Deoxyribonucleic acid sequences
 (complementary, for ACT-4 receptor of
 human; receptor ACT-4 on surface of
 activated T-cells and its properties and uses)

IT Antibodies
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (monoclonal, to ACT-4 receptor
 of activated T-cells; receptor ACT-4 on
 surface of activated T-cells and its properties and uses)

IT 166025-61-2
 RL: BOC (Biological occurrence); PRP (Properties); THU (Therapeutic use);
 BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (amino acid sequence; receptor ACT-4 on
 surface of activated T-cells and its properties and uses)

IT 166025-60-1
 RL: BOC (Biological occurrence); PRP (Properties); THU (Therapeutic use);
 BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (nucleotide sequence; receptor ACT-4 on
 surface of activated T-cells and its properties and uses)

=> fil biosis
 FILE 'BIOSIS' ENTERED AT 15:36:44 ON 18 JUN 2002
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FILE COVERS 1969 TO DATE.
 CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
 FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 12 June 2002 (20020612/ED)

=> d all tot

L52 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
 AN 2002:126516 BIOSIS
 DN PREV200200126516
 TI Receptor on the surface of activated CD4+-T-cells: ACT
 -4.
 AU Godfrey, W.; Buck, D.; Engleman, E. G.
 CS Woodside, Calif. USA
 ASSIGNEE: THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY

PI US 5821332 Oct. 13, 1998
 SO Official Gazette of the United States Patent and Trademark Office Patents,
 (Oct. 13, 1998) Vol. 1215, No. 2, pp. 1859.
 ISSN: 0098-1133.

DT Patent
 LA English
 NCL 530350000
 CC Biochemical Studies - Proteins, Peptides and Amino Acids *10064
 Pharmacology - General *22002
 Cytology and Cytochemistry - Human *02508
 IT Major Concepts
 Biochemistry and Molecular Biophysics; Cell Biology; Pharmacology
 IT Sequence Data
 AMINO ACID SEQUENCE
 IT Miscellaneous Descriptors
 ACT-4 RECEPTOR POLYPEPTIDE; ACTIVATED
 CD4-PLUS-T-CELLS; PHARMACEUTICALS

L52 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
 AN 2001:549491 BIOSIS
 DN PREV200100549491
 TI Ligand (ACT-4-L) to a receptor on the
 surface of activated CD4+ T-cells.
 AU Godfrey, Wayne; Engleman, Edgar G.
 ASSIGNEE: Board of Trustees of the Leland Stanford Junior University, Palo
 Alto, CA, USA
 PI US 6242566 June 05, 2001
 SO Official Gazette of the United States Patent and Trademark Office Patents,
 (June 5, 2001) Vol. 1247, No. 1, pp. No Pagination. e-file.
 ISSN: 0098-1133.

DT Patent
 LA English
 AB The invention provides ligands and fragments thereof to a receptor
 on the surface of activated CD4+ T-cells. An exemplary ligand is
 designated ACT-4-L-h-1. Preferred
 fragments include purified extracellular domains of ligands. The invention
 also provides humanized and human antibodies to the ligand. The invention
 further provides methods of using the ligand and the antibodies in
 treatment of diseases and conditions of the immune system. The invention
 also provides methods of monitoring activated CD4+ T-cells using the
 ligands or fragments thereof.

NCL 530350000
 IT Major Concepts
 Clinical Immunology (Human Medicine, Medical Sciences); Methods and
 Techniques; Pharmacology
 IT Parts, Structures, & Systems of Organisms
 CD4 positive T-cells: immune system
 IT Chemicals & Biochemicals
 ACT-4-L-h-1: CD4 positive
 T-cell surface receptor binding, human antibodies, humanized
 antibodies
 IT Methods & Equipment
 activated CD4 positive T-cell monitoring method: monitoring method;
 immune response suppression: therapeutic method; immunosuppressive agent
 screening: screening method

L52 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
 AN 2001:482555 BIOSIS
 DN PREV200100482555
 TI Receptor on the surface of activated t-cells: act-
 4.
 AU Godfrey, Wayne (1); Buck, David; Engleman, Edgar
 G.

CS (1) Woodside, CA USA
 ASSIGNEE: The Board of Trustees of Leland Stanford Junior University, Palo Alto, CA, USA; Becton Dickinson and Company

PI US 6277962 August 21, 2001

SO Official Gazette of the United States Patent and Trademark Office Patents, (Aug. 21, 2001) Vol. 1249, No. 3, pp. No Pagination. e-file.
 ISSN: 0098-1133.

DT Patent

LA English

AB The invention provides purified **ACT-4 receptor** polypeptides, antibodies against these polypeptides and nucleic acids encoding **ACT-4 receptor** polypeptides. Also provided are methods of diagnosis and treatment using the same. **ACT-4 receptors** are preferentially expressed on the surface of activated CD4+ T-cells. **ACT-4 receptors** are usually expressed at low levels on the surface of activated CD8+ cells, and are usually substantially absent on resting T-cells, and on monocytes and B-cells (resting or activated). An exemplary **ACT-4 receptor**, termed **ACT-4-h-1**, has a signal sequence, an extracellular domain comprising three disulfide-bonded intrachain loops, a transmembrane domain, and an intracellular domain.

NCL 530388000

IT Major Concepts

Molecular Genetics (Biochemistry and Molecular Biophysics); Clinical Immunology (Human Medicine, Medical Sciences); Methods and Techniques

IT Parts, Structures, & Systems of Organisms

CD4 positive T-cells: activated, detection, immune system

IT Chemicals & Biochemicals

ACT-4 receptor polypeptides:
 antibodies, encoding nucleic acids, extracellular domains;
ACT-4-h-1: monoclonal
 antibodies

IT Methods & Equipment

immunosuppressive agent screening: screening method

L52 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2001:296823 BIOSIS

DN PREV200100296823

TI Ligand (**ACT-4-L**) to a **receptor** on the surface of activated CD4+ T-cells.

AU Godfrey, Wayne (1); Engleman, Edgar G.; Buck, David

CS (1) White Bear Lake, MN USA

ASSIGNEE: The Board of Trustees of the Leland Stanford Junior University; Becton Dickinson and Company

PI US 6156878 December 05, 2000

SO Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 5, 2000) Vol. 1241, No. 1, pp. No Pagination. e-file.
 ISSN: 0098-1133.

DT Patent

LA English

AB The invention provides ligands and fragments thereof to a **receptor** on the surface of activated CD4+ T-cells. An exemplary ligand is designated **ACT-4-L-h-1**. Preferred fragments include purified extracellular domains of ligands. The invention also provides humanized and human antibodies to the ligand. The invention further provides methods of using the ligand and the antibodies in treatment of diseases and conditions of the immune system. The invention also provides methods of monitoring activated CD4+ T-cells using the ligands or fragments thereof.

NCL 530350000

IT Major Concepts

Methods and Techniques; Pharmacology
 IT Parts, Structures, & Systems of Organisms
 CD4-T cells: blood and lymphatics, immune system
 IT Diseases
 immune system disease: immune system disease
 IT Chemicals & Biochemicals
 ligand **ACT-4-L-h-1**: immunologic
 - drug
 IT Methods & Equipment
 activated CD4-T cell monitoring method: monitoring method

L52 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
 AN 1994:91282 BIOSIS
 DN PREV199497104282
 TI Molecular cloning of a cDNA encoding the human homolog of the rat OX-40 antigen.
 AU Godfrey, Wayne (1); Buck, David; Harara, Marwan (1); Engleman, Edgar (1)
 CS (1) Stanford Univ. Blood Cent., Palo Alto, CA USA
 SO Tissue Antigens, (1993) Vol. 42, No. 4, pp. 253.
 Meeting Info.: 5th International Conference on Human Leukocyte Differentiation Antigens Boston, Massachusetts, USA November 3-7, 1993
 ISSN: 0001-2815.

DT Conference
 LA English
 CC Cytology and Cytochemistry - Animal 02506
 Cytology and Cytochemistry - Human 02508
 Genetics and Cytogenetics - Animal 03506
 Genetics and Cytogenetics - Human *03508
 Biochemical Studies - Nucleic Acids, Purines and Pyrimidines *10062
 Biochemical Studies - Proteins, Peptides and Amino Acids 10064
 Biophysics - Molecular Properties and Macromolecules *10506
 Biophysics - Membrane Phenomena *10508
 Blood, Blood-Forming Organs and Body Fluids - Blood Cell Studies *15004
 Blood, Blood-Forming Organs and Body Fluids - Lymphatic Tissue and Reticuloendothelial System *15008
 Endocrine System - General *17002
 Immunology and Immunochemistry - Immunopathology, Tissue Immunology *34508

BC Hominidae 86215
 Muridae *86375
 IT Major Concepts
 Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport and Circulation); Clinical Immunology (Human Medicine, Medical Sciences); Endocrine System (Chemical Coordination and Homeostasis); Genetics; Membranes (Cell Biology)

IT Miscellaneous Descriptors
 CD27; CD30; CD40; COMPLEMENTARY DNA; L106 MOLECULE; MEETING ABSTRACT; NERVE GROWTH FACTOR RECEPTOR FAMILY; NOVEL SUPERFAMILY; PERIPHERAL BLOOD LYMPHOCYTE; SEQUENCE IDENTITY; SPLENOCYTE

ORGN Super Taxa
 Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia; Muridae: Rodentia, Mammalia, Vertebrata, Chordata, Animalia
 ORGN Organism Name
 murine (Muridae); Hominidae (Hominidae)
 ORGN Organism Superterms
 animals; chordates; humans; mammals; nonhuman mammals; nonhuman vertebrates; primates; rodents; vertebrates

FILE LAST UPDATED: 13 JUN 2002 <20020613/UP>
 MOST RECENT DERWENT UPDATE 200237 <200237/DW>
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=> d all tot 168 abeq tech

L68 ANSWER 1 OF 2 WPIX (C) 2002 THOMSON DERWENT
 AN 1995-293117 [38] WPIX
 DNN N1995-221675 DNC C1995-132004
 TI Ligand, ACT-4-1, to receptor on activated CD4 positive
 cells - useful in treatment of various immune diseases and conditions.
 DC B04 D16 S03
 IN ENGLEMAN, E G; GODFREY, W; ENGLEMAN, E;
 BUCK, D
 PA (STRD) UNIV LELAND STANFORD JUNIOR; (GREA-I) GREAVES C P; (ENGL-I)
 ENGLEMAN E G; (GODF-I) GODFREY W; (BECT) BECTON DICKINSON & CO
 CYC 61
 PI WO 9521915 A1 19950817 (199538)* EN 124p C12N015-12
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ
 W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG
 KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE
 SI SK TJ TT UA US UZ VN
 AU 9515836 A 19950829 (199548) C12N015-12
 EP 741784 A1 19961113 (199650) EN C12N015-12
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
 JP 09509826 W 19971007 (199750) 90p C12N015-02
 AU 9918436 A 19990506 (199929)# C12N015-12
 US 6156878 A 20001205 (200066) C07K014-705
 US 6242566 B1 20010605 (200133) C07K014-435
 US 2001044523 A1 20011122 (200176) C07K016-18
 AU 2002010060 A 20020228 (200225)# A61K038-17
 ADT WO 9521915 A1 WO 1995-GB238 19950206; AU 9515836 A AU 1995-15836 19950206;
 EP 741784 A1 EP 1995-907739 19950206, WO 1995-GB238 19950206; JP 09509826
 W JP 1995-521040 19950206, WO 1995-GB238 19950206; AU 9918436 A Div ex AU
 1995-15836 19950206, AU 1999-18436 19990225; US 6156878 A Cont of US
 1994-195967 19940210, US 1997-881033 19970623; US 6242566 B1 US
 1994-195967 19940210; US 2001044523 A1 Div ex US 1994-195967 19940210, US
 2001-804200 20010313; AU 2002010060 A Div ex AU 1999-18436 19990225, AU
 2002-10060 20020104
 FDT AU 9515836 A Based on WO 9521915; EP 741784 A1 Based on WO 9521915; JP
 09509826 W Based on WO 9521915; US 2001044523 A1 Div ex US 6242566
 PRAI US 1994-195967 19940210; AU 1999-18436 19990225; US 1997-881033
 19970623; US 2001-804200 20010313; AU 2002-10060 20020104
 REP 3.Jnl.Ref
 IC ICM A61K038-17; C07K014-435; C07K014-705; C07K016-18; C12N015-02;
 C12N015-12

ICS A61K038-00; A61K038-16; A61K038-21; A61K039-395; C07K016-28;
 C07K019-00; C12N005-08; C12N005-10; C12N015-09; C12N015-85;
 C12P021-02; C12P021-08; G01N033-53; G01N033-543; G01N033-566;
 G01N033-577; G01N033-68

ICA C07H021-04

ICI C12P021-02, C12R001:91; C12P021-08, C12R001:91

AB WO 9521915 A UPAB: 19950927

A specific binding partner (sbp) for an ACT-4 receptor polypeptide is new. The sbp is other than the monoclonal antibody (MAb) L106 produced by hybridoma HBL106 (ATCC HB11483) and it has an amino acid sequence (I) other than the 183 sequence given in the specification.

USE - The sbp is useful, in a pharmaceutical compsn. (claimed), for ex vivo therapy to modify a patient's immune response. The sbp has application in treatment of transplant rejection, GVHD, autoimmune disease, inflammation, infectious agents, HTLV infected cells or HIV. Specifically, inflammatory bowel disease (IBD) can be treated using the sbp. The sbp is also useful for screening for immunomodulatory agents able to recognise ACT-4 (claimed). It is also useful for monitoring activated CD4- positive cells or inhibiting infection of CD4 positive cells. The binding moiety can be used to induce an immune response to a selected antigen (Ag).

Dwg.0/10

FS CPI EPI

FA AB

MC CPI: B04-E02; B04-E08; B04-F05; B04-N03; B12-K04A; B14-A01; B14-A02;
 B14-C03; B14-G02D; B14-G03; D05-H09; D05-H12A; D05-H12E; D05-H14;
 D05-H14B; D05-H17A4

EPI: S03-E14H; S03-E14H4

L68 ANSWER 2 OF 2 WPIX (C) 2002 THOMSON DERWENT

AN 1995-185777 [24] WPIX

DNN N1995-145444 DNC C1995-086349

TI Isolated ACT-4 receptor from activated T-cells - also its ligands and antibodies, useful for treating diseases of the immune system.

DC B04 D16 S03

IN BUCK, D W; ENGLEMAN, E G; GODFREY, W;

BUCK, D

PA (BECT) BECTON DICKINSON & CO; (STRD) UNIV LELAND STANFORD JUNIOR; (BECT)
 BECTON DICKINSON CO; (BUCK-I) BUCK D; (ENGL-I) ENGLEMAN E G; (GODF-I)
 GODFREY W

CYC 60

PI WO 9512673 A1 19950511 (199524)* EN 82p C12N015-13

RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ
 W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG
 KP KR KZ LK LR LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI
 SK TJ TT UA US UZ VN

AU 9480652 A 19950523 (199535) C12N015-13

EP 726952 A1 19960821 (199638) EN C12N015-13

R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

JP 09504693 W 19970513 (199729) 79p C12N015-09

US 5821332 A 19981013 (199848) C07K014-705 <--

AU 9894138 A 19990218 (199919) C07K014-725 <--

US 6277962 B1 20010821 (200150) C07K016-00 <--

AU 2001023233 A 20011004 (200166)# C07K014-725 <--

US 2001044522 A1 20011122 (200176) G01N033-567

ADT WO 9512673 A1 WO 1994-GB2415 19941103; AU 9480652 A AU 1994-80652

19941103; EP 726952 A1 EP 1994-931650 19941103, WO 1994-GB2415 19941103;

JP 09504693 W WO 1994-GB2415 19941103, JP 1995-513094 19941103; US 5821332

A US 1993-147784 19931103; AU 9894138 A Div ex AU 1994-80652 19941103, AU

1998-94138 19981126; US 6277962 B1 Div ex US 1993-147784 19931103, US

1995-472940 19950606; AU 2001023233 A Div ex AU 1998-94138 19981126, AU

2001-23233 20010226; US 2001044522 A1 Div ex US 1993-147784 19931103, Cont

of US 1995-472940 19950606, US 2001-852845 20010511
 FDT AU 9480652 A Based on WO 9512673; EP 726952 A1 Based on WO 9512673; JP
 09504693 W Based on WO 9512673; US 6277962 B1 Div ex US 5821332; US
 2001044522 A1 Div ex US 5821332, Cont of US 6277962
 PRAI US 1993-147784 19931103; US 1995-472940 19950606; AU 2001-23233
 20010226; US 2001-852845 20010511

REP 12Jnl.Ref

IC ICM C07K014-705; C07K014-725; C07K016-00;
 C12N015-09; C12N015-13; G01N033-567
 ICS A61K038-00; A61K039-395; C07H021-04; C07K007-00;
 C07K014-00; C07K016-28; C07K016-34;
 C12N005-10; C12N005-20; C12N015-12; C12P021-02; C12P021-08;
 G01N033-564; G01N033-566; G01N033-577; G01N033-68

ICI C12N005-10, C12R001:91

AB WO 9512673 A UPAB: 19950626

An isolated e.g. purified, polypeptide (I) comprises: (a) an **ACT-4** receptor or extracellular domain having at least five contiguous amino acids from the 277 amino acid sequence shown in the specification and/or an antigenic determinant in common with a protein comprising the 277 amino acid sequence; or (b) an epitope specifically bindable by antibody L106.

Also claimed are: (1) an **ACT-4** ligand capable of specific binding to (I) which is an **ACT-4-h-1** receptor polypeptide; etc.

USE - (I) and its ligands or fragments, anti-**ACT-4** receptor antibodies and idiotypic antibodies are useful for treatment of transplant rejection; graft versus host disease; autoimmune diseases, such as insulin-dependent diabetes mellitus, multiple sclerosis, stiff man syndrome, rheumatoid arthritis, myasthenia gravis and lupus erythematosus; inflammation and infectious agents. In addition, the use of (I) is claimed for screening an antibody for specific binding to the same epitope as that bound by an L106 antibody, localising an epitope specifically bound by an L106 antibody, screening for immunosuppressive agents, screening for an **ACT-4** ligand and detecting a specific binding partner of **ACT-4-h-1** receptor polypeptide.

Dwg.0/8

FS CPI EPI

FA AB

MC CPI: B04-E03A; B04-F05; B04-G04; B04-G21; B04-K01; B14-C03; B14-C09B;
 B14-G02; B14-S01; B14-S04; D05-H09; D05-H11A1; D05-H12A; D05-H14B2;
 D05-H15; D05-H17A4

EPI: S03-E14H4

=> d his

(FILE 'HOME' ENTERED AT 15:18:36 ON 18 JUN 2002)
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 15:18:48 ON 18 JUN 2002

L1	0 S ACT4H1
L2	0 S ACT4(L)H1
L3	81 S ACT(L)4(L)H1
L4	135 S ACT(L)4(L)H 1
L5	1 S ACT4 (L) H 1
L6	216 S L3-L5
L7	0 S L6 AND MAB
L8	2 S L6 AND MONOCLON?(L)ANTIBOD?
L9	2 S (ACT4 OR ACT 4)(L)(H1 OR H 1)
L10	2 S L8,L9
L11	0 S HB11483
L12	0 S HB 11483
L13	0 S HBL106

L14 0 S "HB L106"
 L15 6 S "L106"
 L16 1 S L15 AND MAB
 L17 3 S L15 AND MONOCLON? (L) ANTIBOD?
 L18 3 S L16, L17
 L19 1 S L18 AND PROTEIN
 L20 3 S L10, L19
 E GODFREY W/AU
 L21 23 S E3-E5, E7, E8
 E BUCK D/AU
 L22 95 S E3-E11, E19-E26
 E ENGLEMAN E/AU
 L23 126 S E3, E5, E8-E11
 L24 3 S L20 AND L21-L23
 L25 3 S L6, L15 AND L21-L23
 L26 3 S L24, L25
 L27 9 S L6, L15 AND (FUSION OR CHIMER? OR CLON? OR RECOMBIN? OR ENGINE
 L28 2 S L26 AND L27
 L29 3 S L26, L28
 L30 7 S L27 NOT L29
 L31 3 S RECEPTOR (L) (ACT4 OR ACT 4)
 L32 2 S L31 NOT 4/SC
 L33 3 S L29, L32

FILE 'HCAPLUS' ENTERED AT 15:30:03 ON 18 JUN 2002

FILE 'BIOSIS' ENTERED AT 15:30:40 ON 18 JUN 2002

L34 5 S L31
 L35 245 S L1-L5
 L36 3 S L9
 L37 0 S L11-L14
 L38 6 S L15
 L39 253 S L34, L35, L36, L38
 L40 5 S L39 AND (MAB OR MONOCLON? (L) ANTIBOD?)
 L41 13 S L39 AND (FUSION OR CHIMER? OR CLON? OR RECOMBIN? OR ENGINEER?
 L42 18 S L40, L41
 L43 5 S L39 AND 00520/CC
 L44 7 S L39 AND CONFERENCE/DT
 E GODFREY W/AU
 L45 57 S E3-E11
 E BUCK D/AU
 L46 213 S E3-E16, E21-E29
 E ENGLEMAN E/AU
 L47 321 S E3, E8, E12-E16
 L48 5 S L39 AND L45-L47
 L49 2 S L48 AND L42-L44
 L50 9 S L43, L44, L48 NOT L49
 SEL DN AN 2 5 6
 L51 3 S L50 AND E1-E6
 L52 5 S L49, L51

FILE 'BIOSIS' ENTERED AT 15:36:44 ON 18 JUN 2002

FILE 'MEDLINE' ENTERED AT 15:37:15 ON 18 JUN 2002

L53 194 S L39
 L54 4 S L53 AND (MAB OR MONOCLON? (L) ANTIBOD?)
 L55 190 S L53 NOT L54
 L56 0 S L55 AND (GODFREY W? OR BUCK D? OR ENGLEMAN E?) /AU
 L57 0 S L53 AND (GODFREY W? OR BUCK D? OR ENGLEMAN E?) /AU
 L58 0 S (ACT4 OR ACT 4) (L) (H1 OR H 1)

FILE 'WPIX' ENTERED AT 15:39:28 ON 18 JUN 2002

L59 2 S L58

L60 1 S L59 AND C07K/IC, ICM, ICS
E BUCK D/AU
L61 16 S E3,E14
E ENGLEMAN E/AU
L62 20 S E3,E4
E GODFREY W/AU
L63 11 S E3-E6
L64 41 S L61-L63
L65 10 S L64 AND C07K/IC, ICM, ICS
L66 6 S ACT4 OR ACT 4
L67 2 S L66 AND L64
L68 2 S L60,L67
L69 4 S L66 NOT L68

FILE 'WPIX' ENTERED AT 15:43:45 ON 18 JUN 2002